Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A system for manipulation of objects comprising:

N physical objects, where N is greater than or equal to 2 and is an integer, each of the N objects unaware of their respective position and orientation and not in communication with each other; and

means for ~~controlling and~~ 2D locating and controlling of the N objects based on each object's current location and orientation, said controlling means communicating movement commands to the objects to control the objects' movement.

Claim 2 (currently amended): A system as described in Claim [[1]] 40 wherein the controlling means includes position indicators disposed on the object.

Claim 3 (original): A system as described in Claim 2 wherein the controlling means includes sensing means for locating the objects.

Claim 4 (original): A system as described in Claim 3 wherein position indicators include emitters which indicate a position of an object.

Claim 5 (original): A system as described in Claim 4 wherein the objects are vehicles.

Claim 6 (original): A system as described in Claim 5 wherein the controlling means includes a vehicle controller disposed with each vehicle.

Claim 7 (original): A system as described in Claim 6 wherein the vehicle controller of each vehicle includes an MCU.

Claim 8 (original): A system as described in Claim 7 wherein the sensing means includes sensors.

Claim 9 (original): A system as described in Claim 8 wherein the emitters include LEDs.

Claim 10 (previously presented): A method for manipulating objects comprising the steps of:

receiving information from N physical objects, where N is greater than or equal to 2 and is an integer, at a centrally controlling and 2D locating controller, each of the N objects unaware of their respective position and orientation and not in communication with each other;

determining 2D locations by the controller of the N objects; and

transmitting from the controller directions to the N objects for the N objects to move.

Claim 11 (original): A method as described in Claim 10 wherein the transmitting step includes the step of transmitting from the controller kinematic parameters to the N objects.

Claim 12 (previously presented): An apparatus for tracking comprising:

N physical objects, where N is greater than or equal to 2 and is an integer, each object having an emitter which emits light, each of the N objects unaware of their respective position and orientation and not in communication with each other; and

means for 2D sensing of the N objects over time from the light emitted by each emitter.

Claim 13 (previously presented): An apparatus as described in Claim 12 including a planar element on which the N objects are disposed, and wherein the sensing means includes at least 2 1-D sensors that sense the light emitted from the edge of the planar element on which the objects are disposed.

Claim 14 (previously presented): A method for tracking comprising the steps of:

emitting light from N physical objects, where N is greater than or equal to 2 and is an integer, each of the N objects unaware of their respective position and orientation and not in communication with each other; and

sensing 2D locations of the N objects over time from the emitted light from the N objects.

Claim 15 (original): A method as described in Claim 14 wherein the sensing step includes the step of sensing 2D locations of the N objects over time from the emitted light from the N objects through an edge of a planar element on which the N objects are disposed.

Claims 16 and 17 (canceled)

Claim 18 (previously presented): An apparatus for tracking comprising:

N physical objects, where N is greater than or equal to 2 and is an integer, each object having an emitter which emits light, each of the N objects unaware of their respective position and orientation and not in communication with each other; and

a sensor for 2D sensing of the N objects over time from the light emitted by each emitter.

Claim 19 (previously presented): The apparatus of Claim 18 wherein the objects are vehicles.

Claim 20 (previously presented): The apparatus of Claim 18 wherein the objects are on vehicles.

Claim 21 (previously presented): The apparatus of Claim 18 containing vehicles capable of holomonic motion.

Claim 22 (previously presented): The apparatus of Claim 18 wherein the objects are on a surface and the sensor senses light at the edge of the surface.

Claims 23-28 (canceled)

Claim 29 (previously presented): The system of Claim 1 wherein the objects are on vehicles.

Claim 30 (previously presented): A method as described in Claim 22 wherein the objects are vehicles.

Claim 31 (previously presented): A method as described in Claim 22 wherein the objects are on vehicles.

Claim 32 (previously presented): The apparatus of Claim 13 wherein the objects are vehicles.

Claim 33 (previously presented): The apparatus of Claim 13 wherein the objects are on vehicles.

Claim 34 (previously presented): A method as described in Claim 15 wherein the objects are vehicles.

Claim 35 (previously presented): A method as described in Claim 15 wherein the objects are on vehicles.

Claims 36-39 (canceled)

Claim 40 (new): The system as described in Claim 1 wherein the communication between the controlling means and the objects are interleaved within a system update cycle.

Claim 41 (new): The method as described in Claim 11 including the step of interleaving communication between the N objects and the controller within a system update cycle.